No. 843,843. PATENTED FEB. 12, 1907.

A. S. REAVIS.

CONCRETE BUILDING CONSTRUCTION.

APPLICATION FILED OCT. 29, 1906.

Fig. 1.

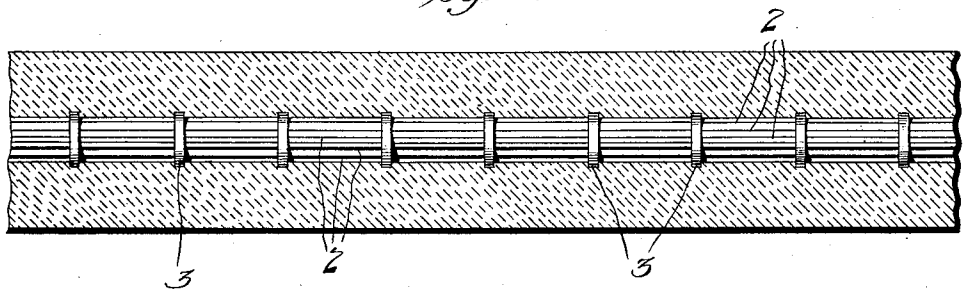


Fig. 2.

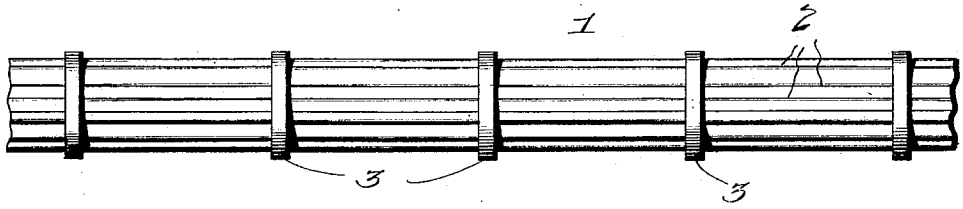


Fig. 3.

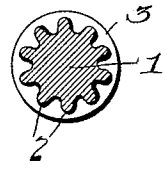


Fig. 4.

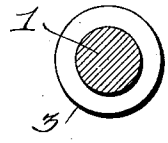
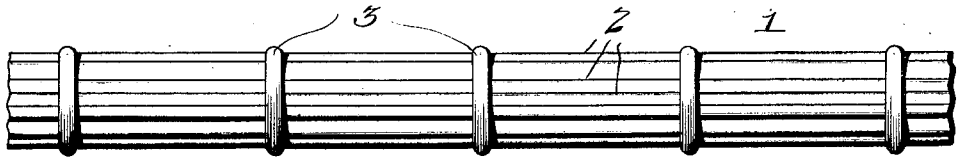


Fig. 5.



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UNITED STATES PATENT OFFICE.

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CONCRETE BUILDING CONSTRUCTION.

No. 843,843. Specification of Letters Patent. Patented Feb. 12, 1907.

Application filed October 29, 1906. Serial No. 341,111.

To all whom it may concern:

Be it known that I, ALBERT S. REAVIS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented a certain new and useful Concrete Building Construction, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to concrete building construction, the object of the invention being to provide a novel construction of bar adapted to be used as a core to be embedded in concrete, the said bar being of such cross-sectional shape that the concrete when hardened around the bar will be prevented from slipping on the bar, even though said concrete become loose on the bar, due to constant jarring and vibration, or from any other cause.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement herein fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a plan view of the bar, shown embedded in concrete. Fig. 2 is an enlarged plan view of the same. Fig. 3 is a cross-section through the bar. Fig. 4 is also a cross-section through the bar, with the longitudinal fluting or corrugations omitted. Fig. 5 is a plan view of the bar, showing the transverse ribs with rounded peripheries.

The bar contemplated in this invention is solid and substantially round or cylindrical in cross-section, as shown in Figs. 3 and 4, and in the preferred embodiment of the invention the outer surface of the bar is longitudinally corrugated or fluted, as shown at 2, the main solid body of the bar being indicated at 1. These corrugations are parallel with one another and extend the entire length of the bar, with the exception of the places where they are interrupted by transverse circumferential ribs 3, which form shoulders against which the concrete finds a bearing when the latter is hardened around the bar.

The transverse circumferential ribs may be arranged at any suitable distance apart and may be of any desired width. Under the preferred arrangement the said ribs 3 project outward beyond the outer edges of the corrugations 2, as clearly shown in Fig. 3, and said ribs are parallel-sided, the sides being at right angles to the corrugations or flutes 2 and forming square shoulders against which the concrete abuts and hardens. If desired, the outer edges of the ribs 3 may be rounded off, as shown in Fig. 4; but ordinarily it will be found expedient to leave said ribs with flat outer edges or peripheries, as shown in Fig. 3.

By extending the ribs 3 outward beyond the extreme outer edges of the corrugations each transverse or circumferential rib 3 affords a continuous annular shoulder on both sides for the concrete. On account of the regularity of the bar in cross-section and the small size of the longitudinal corrugations there is no liability of the bar to fracture or break up the concrete should torsional strain be applied to the bar causing it to turn in the concrete. Where the bar is liable to be subjected to excessive torsional action and the fact is known beforehand, the corrugations or fluting may be omitted, as shown in Fig. 4.

The bar hereinabove described may be manufactured cheaply, and in the ordinary concrete building construction there is no liability of relative sliding or slipping and turning movement between the bar and the concrete surrounding the same.

I claim—

1. A bar adapted to be used as a core to be embedded in concrete, comprising an integral body having the outer surface thereof longitudinally fluted, and circumferential ribs interrupting the flutes and forming continuous annular shoulders for the purpose set forth.

2. A bar adapted to be used as a core to be embedded in concrete, comprising a solid body having the outer surface thereof longitudinally fluted, and circumferential ribs interrupting the longitudinal flutes and extending outward beyond the same and forming continuous annular shoulders for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT S. REAVIS.

Witnesses:

RENFORD M. SMITH,

A. M. PARKINS.